AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application.

1 – 60. (Canceled)

61. (Currently amended) A medical device, comprising:

a detector system configured to detect patient conditions;

a disordered breathing detection system coupled to the detector system and configured to detect disordered breathing;

a therapy control system coupled to the disordered breathing detection system and the detector system configured to deliver a cardiac electrical therapy to mitigate the disordered breathing, the therapy control system comprising:

circuitry configured to assess an efficacy of the therapy based on one or more first conditions of the detected patient conditions; and

circuitry configured to assess a negative impact of the therapy on a patient based on one or more second conditions of the detected patient conditions, the one or more first conditions differing from the one or more second conditions at least in part,

wherein the therapy control system is configured to adapt the cardiac electrical therapy to promote the therapy efficacy and adapt the cardiac electrical therapy to reduce the negative impact of the therapy on the patient; and

a therapy delivery system coupled to the therapy control system and configured to deliver the adapted therapy to the patient, wherein at least one of the detector system, the disordered breathing detection system, the therapy control system, and the therapy delivery system includes an implantable component.

62. (Original) The medical device of claim 61, wherein at least two of the detector system, the disordered breathing detection system, the therapy control system, and the therapy delivery system include implantable components.

63. (Original) The medical device of claim 61, wherein at least three of the detector system, the disordered breathing detection system, the therapy control system, and the therapy delivery system include implantable components.

64. (Original) The medical device of claim 61, wherein each of the detector system, the disordered breathing detection system, the therapy control system, and the therapy delivery system include implantable components.

65. (Original) The medical device of claim 61, wherein the detector system comprises a patient-internal sensor.

66. (Original) The medical device of claim 61, wherein the detector system comprises a patient-external sensor.

67. (Original) The medical device of claim 61, wherein the detector system comprises a patient input device.

68. (Original) The medical device of claim 61, wherein at least one of the detector system, the disordered breathing detection system, the therapy control system, and the therapy delivery system includes a wirelessly connected component.

69. (Original) The medical device of claim 61, wherein the disordered breathing detection system is configured to detect a respiration pattern of one or more respiration cycles, determine one or more characteristics of the respiration pattern, and classify the respiration

pattern as disordered breathing based on the one or more characteristics of the respiration pattern.

70. (Canceled)

71. (Original) The medical device of claim 61, wherein the therapy control system is configured to adapt the therapy based on patient comfort.

72. (Original) The medical device of claim 61, wherein the therapy control system is configured to adapt the therapy based on sleep quality.

73. (Original) The medical device of claim 61, wherein the therapy control system is configured to adapt the therapy based on respiration quality.

74. (Canceled)

75. (Original) The medical device of claim 61, wherein the therapy control system is configured to adapt the therapy to increase a lifetime of the medical device.

76. (Original) The medical device of claim 61, wherein the therapy control system is configured to adapt the therapy to reduce interaction between a therapy to treat a cardiac disorder and the therapy to mitigate the disordered breathing.

77. (Original) The medical device of claim 61, wherein the therapy control system is configured to adapt the therapy to a more aggressive therapy if an initial therapy is ineffective.

78. (Original) The medical device of claim 61, wherein the therapy control system is configured to adapt the therapy to a less aggressive therapy if an initial therapy is effective.

79. (Previously presented) The medical device of claim 61, wherein the therapy control system is configured to adapt the therapy to a less aggressive therapy if an initial therapy does not reduce the impact of the therapy on the patient.

80. (Original) The medical device of claim 61, wherein the therapy control system is configured to adapt the therapy by modifying a pacing regimen.

81. (Original) The medical device of claim 61, wherein the therapy control system is configured to adapt the therapy by adjusting a pacing rate.

82. (Original) The medical device of claim 61, wherein the therapy control system is configured to adapt the therapy by adjusting a pacing energy.

83. (Original) The medical device of claim 61, wherein the therapy control system is configured to adapt the therapy by adjusting a pacing mode.

84. (Original) The medical device of claim 61, wherein the therapy control system is configured to adapt the therapy by adjusting a pacing site.

85. (Original) The medical device of claim 61, wherein the therapy control system is configured to adapt the therapy to mitigate apnea.

86. (Original) The medical device of claim 61, wherein the therapy control system is configured to adapt the therapy to mitigate hypopnea.

87. (Original) The medical device of claim 61, wherein the therapy control system is configured to adapt the therapy to mitigate Cheyne-Stokes respiration.

88. (Original) The medical device of claim 61, wherein the therapy control system is configured to adapt the therapy to mitigate sleep-disordered breathing.

89. (Original) The medical device of claim 61, wherein the therapy delivery system is configured to deliver bi-ventricular pacing therapy.

90. (Original) The medical device of claim 61, wherein the therapy delivery system is configured to deliver atrial pacing.

91. (Original) The medical device of claim 61, wherein the therapy delivery system is configured to deliver ventricular pacing.

92. (Original) The medical device of claim 61, wherein the therapy delivery system is configured to deliver multi-chamber pacing.

93. (Original) The medical device of claim 61, wherein the therapy delivery system is configured to deliver multi-site pacing.

94 – 97. (Canceled)

98. (Currently amended) A medical device, comprising:

a detector system configured to detect patient conditions;

a disordered breathing detection system coupled to the detector system and configured to detect disordered breathing;

a therapy control system coupled to the disordered breathing detection system and the detector system configured to deliver a cardiac electrical therapy to mitigate the disordered breathing, the therapy control system comprising circuitry configured to assess a negative impact of the therapy on a patient based on at least one first condition of the detected patient conditions other than sleep

fragmentation, the therapy control system configured to adapt the cardiac electrical therapy to reduce the negative impact of the therapy on the patient; and

a therapy delivery system coupled to the therapy control system and configured to deliver the adapted therapy to the patient, wherein at least one of the detector system, the disordered breathing detection system, the therapy control system, and the therapy delivery system includes an implantable component.

99. (Previously presented) The medical device of claim 98 wherein the therapy control system is configured to adapt the cardiac electrical therapy toward balancing the negative impact of the therapy with an efficacy of the therapy at mitigating the disordered breathing .

100. (Previously presented) The medical device of claim 98 wherein the negative impact of the therapy comprises a decreased lifetime of the medical device.

101. (Previously presented) The medical device of claim 98 wherein the negative impact of the therapy comprises stress on physiological systems.

102. (Previously presented) The medical device of claim 98 wherein the negative impact of the therapy comprises patient discomfort.

103. (Previously presented) The medical device of claim 98 wherein the negative impact of the therapy comprises interaction with cardiac pacing algorithms.

104. (Previously presented) The medical device of claim 98 wherein the therapy control system is configured to adapt the cardiac electrical therapy to reduce the negative impact on sleep quality caused by the therapy.